

2.11 Solving Rational & Radical Eq. (KEY)

SHOW WORK ON ALL PROBLEMS!!

1. no restrictions, $x = -1$

2. $x \neq 3$, $x = 4$

3. $x \neq 0$, $x = 3$, $x = 4$

4. $x \neq -5$ or 2 , $x = -1/3$, $x = 2$ extraneous

5. $x \neq 0$ or -2 , $x = 0$, $x = -2$ both extraneous so no solution

6. $x \neq -5$, $x = 1$

7. $x \geq -1/4$, $x = 6$

8. $x \geq -3/2$, $x = 23$

9. $x \geq 0$, $x = 1$

10. no restrictions, $x = -1$

11. no restrictions, $x = 100$

12. no restrictions, $x = 1$

13. $x \geq 0$, $x = 9$, $x = 1$ extraneous

14. no restrictions, $x = 5$

15. $x \geq -1$, $x = 8$

16. $x \geq -3$, $x = 1$, $x = -2$ extraneous

17. $x \geq 0$, $x = 5$

18. no restrictions, $x = 5\sqrt{5} + 4$

19. $\frac{x-2}{x^2-2x+4}$

20. $\frac{y}{32x}$

21. $\frac{4y^2}{z^2}$

22. $\frac{11y^2z^2+1}{16y^3}$

23. $\frac{-x^2+2x+3}{(x+3)(x-2)}$